

Supplementary Materials

Multifunctional Carbon Nanotubes Enhanced Structural Composites with Improved Toughness and Damage Monitoring

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Raw data of stress/strain experiments with pure EP, EP-CNT, UD GF-EP and UD GF-EP-CNT are summarized in Table S1 from the analysis of the curves plotted in Figures S1-S8.

Table S1. Summary of modulus (E), stress at break (σ_b) & strain at break (ϵ_b) data extracted from curves from Figures S1-S8.

EP				UD GF-EP						
	EP	+/- %	EP-CNT	+/- %	Ratio %	EP	+/- %	EP-CNT	+/- %	Ratio %
E (MPa)	3569,8	1,4	3487,2	1,2	-2	7723,9	3,6	6349,0	15,8	-18
σ_b (MPa)	65,4	5,0	68,0	3,8	4	15,5	1,9	17,8	2,6	15
ϵ_b (%)	3,35	17,9	3,3	8,6	-3	0,2	4,3	0,3	10,0	30
E (MPa)	3087,5	6,8	3114,4	8,3	1	7346,4	17,2	6948,8	6,5	-5
σ_b (MPa)	110,7	4,5	124,0	4,8	12	38,7	11,9	44,0	8,2	14
ϵ_b (%)	5,7	3,5	6,4	20,3	12	0,5	13,2	0,7	7,6	25

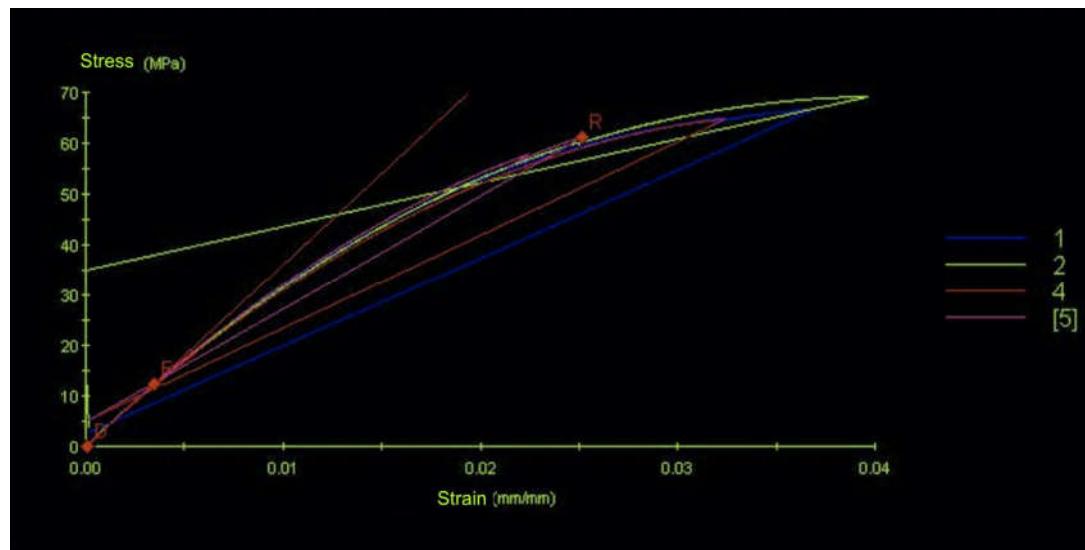


Figure S1. Stress/strain curves of 5 EP samples in Tension.

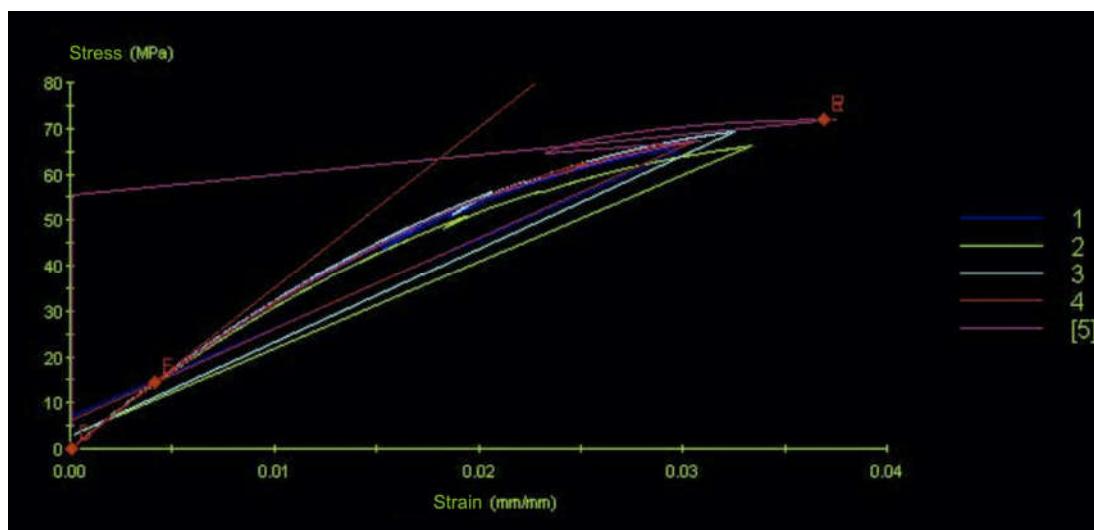


Figure S2. Stress/strain curves of 5 EP-CNT samples in Tension.

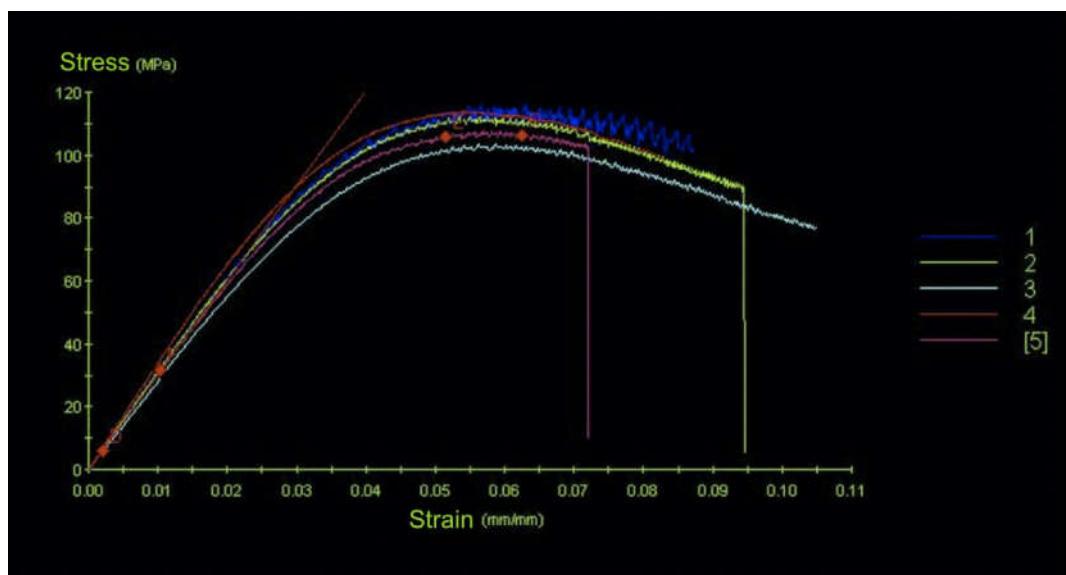


Figure S3. Stress/strain curves of 5 EP samples in Bending.

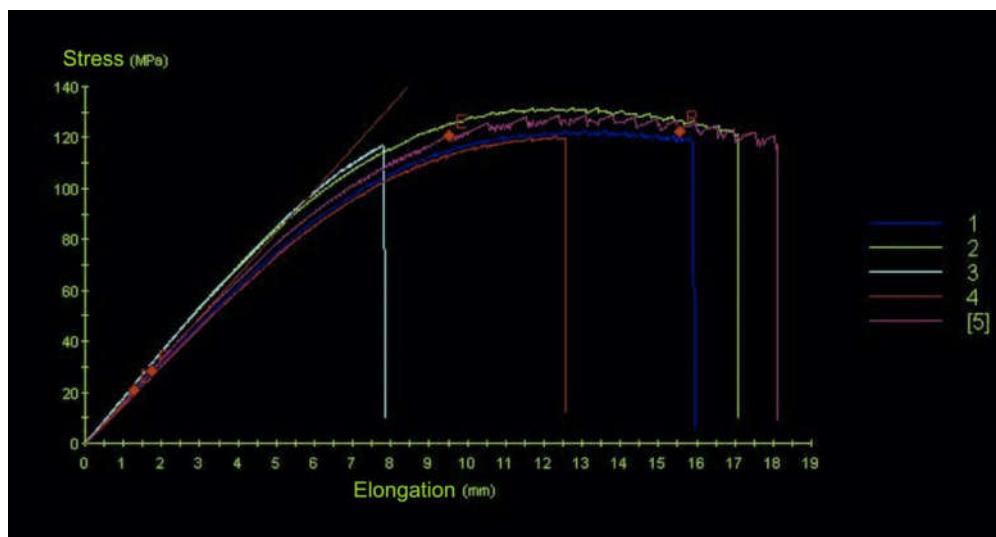


Figure S4. Stress/strain curves of 5 EP-CNT samples in Bending.

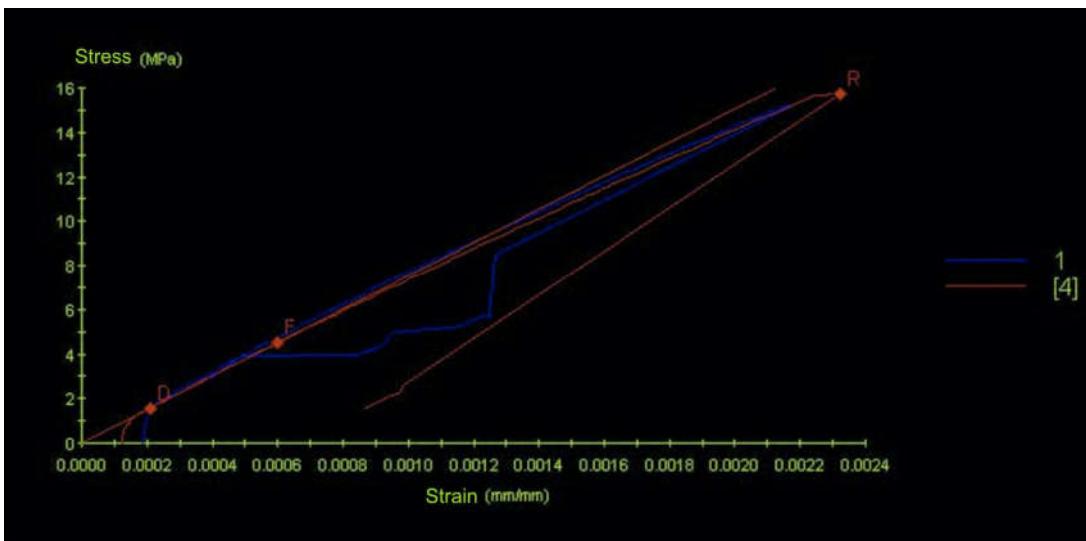


Figure S5. Stress/strain curves of 5 UD GF-EP samples in 90° Tension.

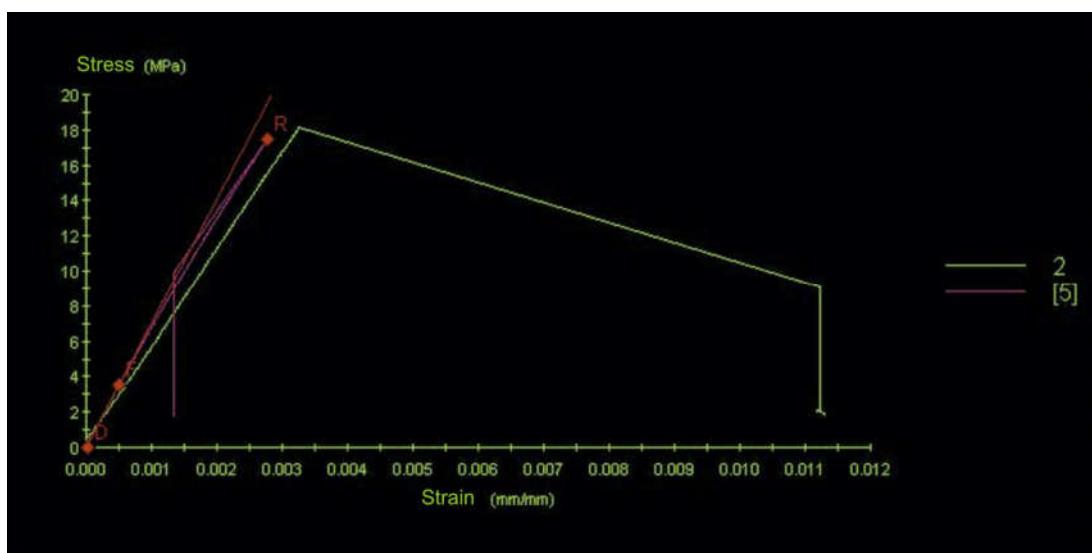


Figure S6. Stress/strain curves of 5 UD GF-EP-CNT samples in 90° Tension.

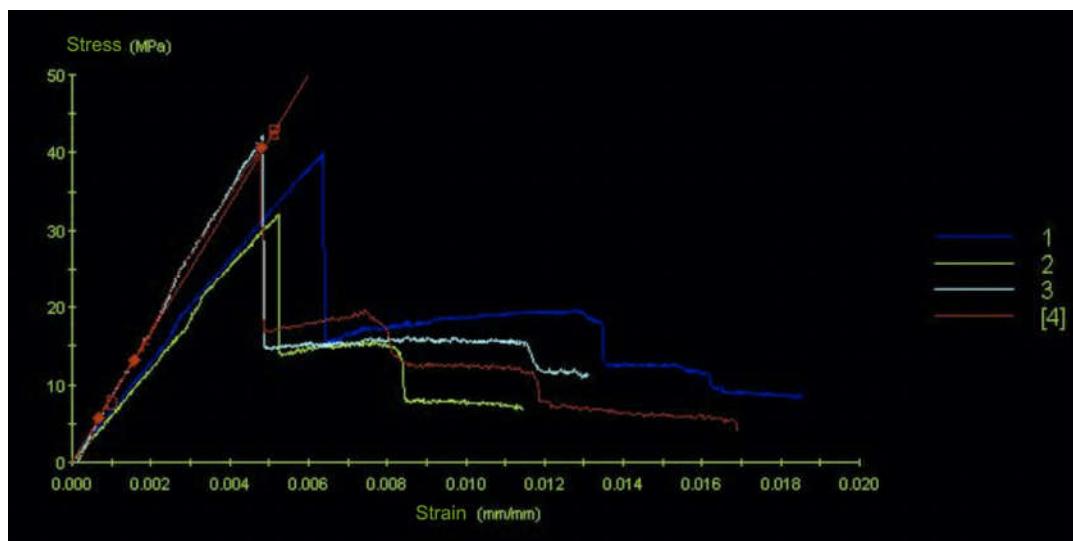


Figure S7. Stress/strain curves of 5 UD GF-EP samples in Bending.

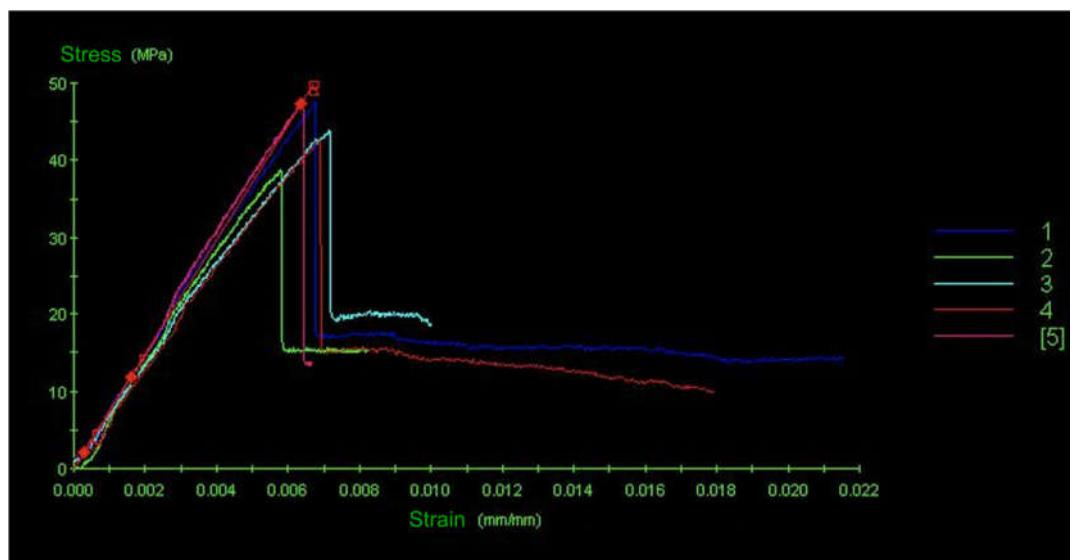


Figure S8. Stress/strain curves of 5 UD GF-EP-CNT samples in Bending.